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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MAKIYA, DAVID J	

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2885	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/763,417	YAGI, HAJIME	
	Examiner	Art Unit	
	David J. Makiya	2885	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7 and 9-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7 and 9-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 January 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/10/2007 has been entered.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "image capturing unit is mounted on a front side of a body of the vehicle while the visible-light emitting unit is mounted on a rear side of the body with respect to the image capturing unit" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 19, and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not enable one of ordinary skill in the art to make the invention since there is no "body of the vehicle" on which there is a front side with the image capturing unit mounted thereon and a rear side on which the visible light emitting unit is mounted. While Figure 2 does show the image unit in front of the light emitting unit, the figure is only a partial sectional view with two overlaying sections. There is no "body of the vehicle" and certainly does not show how the image capturing unit and visible light emitting unit are mounted. The applicant claims the "body of the vehicle" since the language seems to imply that the there is a separate "body" that has both the image capturing unit and visible-light emitting unit mounted to it, but Figure 3 clearly shows

that there is no "body of the vehicle" which would be required to enable one of ordinary skill in the art to make and/or use the invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear as to how the applicant claims the "body of the vehicle" since the language seems to imply that the there is a separate "body" that has both the image capturing unit and visible-light emitting unit mounted to it. However, Figure 3 clearly shows that there is no "body of the vehicle" on which there is a front side with the image capturing unit mounted thereon and a rear side on which the visible light emitting unit is mounted. While Figure 2 does show the image unit in front of the light emitting unit, the figure is only a partial sectional view with two overlaying sections. There is no "body of the vehicle" and certainly does not show how the image capturing unit and visible light emitting unit are mounted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-5, 7, 9-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez Barros et al. (US 2003/0169160) in view of Misaiji et al. (US 2003/00989).

With respect to claim 1, Rodriguez Barros et al. teaches an outside mirror for a vehicle, comprising a mirror base E configured to mount to the vehicle; a mirror housing D connected to the mirror base; an image capturing unit (Paragraph 1); and a visible-light emitting unit 30 that emits visible light (Paragraph 3), wherein the visible-light emitting unit functions as any one of a side-turn lamp, a side marker lamp, or a turn lamp of a front combination lamp of the vehicle (Paragraph 8). Rodriguez Barros et al. fails to teach the arrangement of the image capturing unit relative to the image capturing unit or their location within the housing. Misaiji et al. teaches an outside mirror for a vehicle comprising a mirror housing 2, an image capturing unit 20 including an image capturing window 10 which is disposed slightly downward (Figure 5); and a visible light emitting unit 30 including a lens 10, the visible light emitting unit is configured to emit visible light, wherein the lens is disposed in a substantially horizontal direction (Figure 7), wherein the image capturing unit is mounted on a front side of a body of the vehicle while the visible light emitting unit is mounted on the rear side of the body with respect to the image capturing unit (Figure 7), wherein the visible light emitting unit is arranged such that the visible light emitted does not directly enter 12 into the image capturing unit and the image capturing unit and the visible light emitting unit mounted in the mirror housing (Figure 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assembly of Rodriguez Barros et al. to add the arrangement of the image capturing unit and light emitting unit within the mirror housing from teachings of Misaiji et al. because "the shielding element 12

prevents not only undesired light from entering the lens 23 of the CCD camera 22 but also dust and water from intruding into the neighborhood of the lens 23 in collaboration with the transparent cover 10. It improves image clearness and prevents deterioration of a field of view due to unclear images caused by the soiled lens" and " a plurality of luminous bodies 30 such as light emitting diodes (LEDs) are provided around the shielding element 12 of the first embodiment and the light emitted by the luminous bodies 30 is directed through the transparent cover 10 to an imaging area taken by the camera 20. Thus the quality of acquired images is much more improved, especially when the vehicle A is in a launching operation at night" (Misaiji et al.; Paragraphs 43 and 54).

With respect to claim 3, Rodriguez Barros et al. teaches the outside mirror wherein the visible-light emitting unit includes a visible-light distribution controller 6 that controls the distribution of the visible light emitted within a predetermined range (Figure 44), wherein the visible-light distribution controller is configured as a reflector or a prism (Paragraph 118).

With respect to claim 4, Rodriguez Barros et al. teaches the outside mirror further comprising a lens 1 that transmits the visible light emitted.

With respect to claim 5, Rodriguez Barros et al. teaches the outside mirror wherein the visible-light emitting unit is provided as a unit part (Figure 44).

With respect to claim 7, Rodriguez Barros et al. teaches the outside mirror further comprising an infrared emitting unit 25-A that emits infrared radiation (Paragraph 100).

With respect to claim 9, Rodriguez Barros et al. teaches the outside mirror wherein the visible-light emitting unit includes a visible-light distribution controller 6 that controls distribution of the visible light emitted within a predetermined range (Paragraph 118).

With respect to claim 10, Rodriguez Barros et al. teaches the outside mirror wherein the infrared emitting unit includes an infrared radiation distribution controller 7 that controls distribution of the infrared radiation emitted within a predetermined range (Figure 85); and the visible-light emitting unit includes a visible-light distribution controller 6 that controls distribution of the visible light emitted within a predetermined range (Paragraph 118).

With respect to claim 11, Rodriguez Barros et al. teaches the outside mirror further comprising a first lens 1 that transmits the visible light emitted.

With respect to claim 12, Rodriguez Barros et al. teaches the outside mirror further comprising a second lens 7 that transmits the infrared radiation emitted.

With respect to claim 13, Rodriguez Barros et al. teaches the outside mirror wherein the infrared emitting unit is provided as a unit part (Figure 33).

With respect to claim 14, Rodriguez Barros et al. teaches the outside mirror wherein the infrared emitting unit includes an infrared source (Paragraph 100), the infrared source includes at least one infrared light-emitting-diode that emits the infrared radiation (Paragraph 232), the visible-light emitting unit includes a visible-light source (Paragraph 100), and the visible-light source includes at least one visible light-emitting-diode that emits the visible light (Paragraph 232).

With respect to claim 15, Rodriguez Barros et al. teaches the outside mirror wherein the infrared light-emitting-diode is mounted on another surface of the substrate (Figure 33).

With respect to claim 16, Rodriguez Barros et al. teaches the outside mirror wherein both the infrared light-emitting diode and the visible light-emitting diode are surface mounted (Figure 33).

With respect to claim 17, Rodriguez Barros et al. teaches the outside mirror wherein the substrate is a flexible substrate (Paragraph 232).

With respect to claim 19, Rodriguez Barros et al. teaches an outside mirror for a vehicle, comprising a mirror base E configured to mount to the vehicle; a mirror housing D connected to the mirror base; an image capturing unit (Paragraph 1); and a visible-light emitting unit 30 that emits visible light (Paragraph 3), wherein the visible light emitting unit functions as any one of a side-turn lamp, a side marker lamp, or a turn lamp of a front combination lamp of the vehicle (Paragraph 8). Rodriguez Barros et al. fails to teach the arrangement of the image capturing unit relative to the image capturing unit or their location within the housing. Misaiji et al. teaches an outside mirror for a vehicle comprising a mirror housing 2, an image capturing unit 20 including an image capturing window 10 which is disposed slightly downward (Figure 5); and a visible light emitting unit 30 including a lens 10, the visible light emitting unit is configured to emit visible light, wherein the lens is disposed in a substantially horizontal direction (Figure 7), wherein the image capturing unit is mounted on a front side of a body of the vehicle while the visible light emitting unit is mounted on the rear side of the body with respect to the image capturing unit (Figure 7), wherein the visible light emitting unit is arranged such that the visible light emitted does not directly enter 12 into the image capturing unit and the image capturing unit and the visible light emitting unit mounted in the mirror housing (Figure 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assembly of Rodriguez Barros et al. to add the arrangement of the image capturing unit and light emitting unit within the mirror housing from teachings of Misaiji et al. because "the shielding element 12 prevents not only undesired light from entering the lens 23 of the CCD camera 22 but also dust

and water from intruding into the neighborhood of the lens 23 in collaboration with the transparent cover 10. It improves image clearness and prevents deterioration of a field of view due to unclear images caused by the soiled lens" and " a plurality of luminous bodies 30 such as light emitting diodes (LEDs) are provided around the shielding element 12 of the first embodiment and the light emitted by the luminous bodies 30 is directed through the transparent cover 10 to an imaging area taken by the camera 20. Thus the quality of acquired images is much more improved, especially when the vehicle A is in a launching operation at night" (Misaiji et al.; Paragraphs 43 and 54).

With respect to claim 20, Rodriguez Barros et al. teaches an outside mirror for a vehicle, comprising a mirror base E configured to mount to the vehicle; a mirror housing D connected to the mirror base; an image capturing unit (Paragraph 1); and a visible-light emitting unit 30 that emits visible light (Paragraph 3), wherein the visible light emitting unit functions as any one of a side-turn lamp, a side marker lamp, or a turn lamp of a front combination lamp of the vehicle (Paragraph 8). Rodriguez Barros et al. fails to teach the arrangement of the image capturing unit relative to the image capturing unit or their location within the housing. Misaiji et al. teaches an outside mirror for a vehicle comprising a mirror housing 2, an image capturing unit 20 including an image capturing window 10 which is disposed slightly downward (Figure 5); and a visible light emitting unit 30 including a lens 10, the visible light emitting unit is configured to emit visible light, wherein the lens is disposed in a substantially horizontal direction (Figure 7), wherein the image capturing unit is mounted on a front side of a body of the vehicle while the visible light emitting unit is mounted on the rear side of the body with respect to the image capturing unit (Figure 7), wherein the visible light emitting unit is arranged such that the visible

light emitted does not directly enter 12 into the image capturing unit and the image capturing unit and the visible light emitting unit mounted in the mirror housing (Figure 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assembly of Rodriguez Barros et al. to add the arrangement of the image capturing unit and light emitting unit within the mirror housing from teachings of Misaiji et al. because "the shielding element 12 prevents not only undesired light from entering the lens 23 of the CCD camera 22 but also dust and water from intruding into the neighborhood of the lens 23 in collaboration with the transparent cover 10. It improves image clearness and prevents deterioration of a field of view due to unclear images caused by the soiled lens" and " a plurality of luminous bodies 30 such as light emitting diodes (LEDs) are provided around the shielding element 12 of the first embodiment and the light emitted by the luminous bodies 30 is directed through the transparent cover 10 to an imaging area taken by the camera 20. Thus the quality of acquired images is much more improved, especially when the vehicle A is in a launching operation at night" (Misaiji et al.; Paragraphs 43 and 54).

Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez Barros et al. in view of Misaiji et al. as applied to claims 1 and 7 above, and further in view of Chu (US Patent 6,520,690).

With respect to claims 6 and 18, Rodriguez Barros et al. in view of Misaiji et al. teaches the outside mirror as described above, but fails to teach a mechanism configured to be tilted my manual or remote operation. Chu teaches an outside mirror for a vehicle comprising an image capturing unit and a light emitting unit 31 wherein the image capturing unit 3 having a mechanism 2A configured to be tilted by manual operation or by remote operation (Column 2,

Lines 53-60). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the mirror of Rodriguez Barros et al. in view of Misaiji et al. further with the teachings of Chu because providing a tilting mechanism means "the camera lens 3 can be adjusted to a suitable shooting angle" (Chu; Column 2, Lines 49-52).

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez Barros et al. in view of Misaiji et al. and Dobler et al. (US Patent 6,038,496).

With respect to claim 21, Rodriguez Barros et al. teaches an outside mirror for a vehicle, comprising a mirror base E configured to mount to the vehicle; a mirror housing D connected to the mirror base; an image capturing unit (Paragraph 1); and a visible-light emitting unit 30 that emits visible light (Paragraph 3); and an infrared emitting unit 25-A that emits infrared radiation (Paragraph 100) with an infrared radiation distribution controller 7, wherein the visible light emitting unit functions as any one of a side-turn lamp, a side marker lamp, or a turn lamp of a front combination lamp of the vehicle (Paragraph 8). Rodriguez Barros et al. fails to teach the arrangement of the image capturing unit relative to the image capturing unit or their location within the housing nor does it teach a control distribution of the infrared radiation emitted within a predetermined range which is substantially the same as or wider than the image capturing range. Misaiji et al. teaches an outside mirror for a vehicle comprising a mirror housing 2, an image capturing unit 20 including an image capturing window 10 which is disposed slightly downward (Figure 5); and a visible light emitting unit 30 including a lens 10, the visible light emitting unit is configured to emit visible light, wherein the visible light emitting unit is arranged such that the visible light emitted does not directly enter 12 into the image capturing unit and the image capturing unit and the visible light emitting unit mounted in the mirror housing (Figure 7).

Dobler et al. teaches an outside mirror for a vehicle comprising a mirror housing (Figure 7), an image capturing unit (15, 2B); an infrared emitting unit (14, 2A) that emits infrared radiation, the image capturing unit captures information in an image capturing range (Column 3, Lines 54-56), and the infrared emitting unit includes an infrared radiation distribution controller (Figures 3 and 6) that controls distribution of the infrared radiation emitted within a predetermined range which is substantially the same as or wider than the image capturing range (Column 4, Lines 2-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assembly of Rodriguez Barros et al. to add the arrangement of the image capturing unit and light emitting unit within the mirror housing from teachings of Misaiji et al. because "the shielding element 12 prevents not only undesired light from entering the lens 23 of the CCD camera 22 but also dust and water from intruding into the neighborhood of the lens 23 in collaboration with the transparent cover 10. It improves image clearness and prevents deterioration of a field of view due to unclear images caused by the soiled lens" and " a plurality of luminous bodies 30 such as light emitting diodes (LEDs) are provided around the shielding element 12 of the first embodiment and the light emitted by the luminous bodies 30 is directed through the transparent cover 10 to an imaging area taken by the camera 20. Thus the quality of acquired images is much more improved, especially when the vehicle A is in a launching operation at night" (Misaiji et al.; Paragraphs 43 and 54) and adding a control distribution of the infrared radiation emitted within a predetermined range would make "it possible to measure running travel time as well as contrast, and to detect the contour of the edge of the road using the triangulation principle" (Dobler et al.; Column 3, Lines 56-67).

Response to Arguments

Applicant's arguments with respect to claims 1, 3-7, and 9-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Makiya whose telephone number is (571) 272-2273. The examiner can normally be reached on Monday-Friday 7:30am - 4:00pm (ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on (571) 272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DJM 10/21/2007

JONG-SUK (JAMES) LEE
SUPERVISORY PATENT EXAMINER